

**Notice of Allowability**

Application No.

10/644,825

Examiner

Shih-Chao Chen

Applicant(s)

YEH, MING HAU

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed on August 21, 2003.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ The drawings filed on 21 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*shih-chao chen 10/21/04*

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the specification, on page 4, lines 8-9, "FIG. 4 is an illustrative diagram of the dipole antenna according to a preferred embodiment of the present invention" is changed to --FIG. 4 is an illustrative diagram of a traditional dipole antenna.--.

In claim 6, line 5, "dual-frequency mid/low resonance wavelength" is changed to -dual-frequency high/low resonance wavelength--.

***Allowable Subject Matter***

2. Claims 1-6 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 1-6 is the inclusion of the limitation of two radiators, of which one being extended from one end of the printed wire at a position other than the corresponding metal grounding surface, and being bent into approximately 90 degrees after being extended to a predetermined length in the direction away from the metal grounding surface to form a radiator of the predetermined length, and then extended along the direction parallel to the radiator and bent into approximately 90 degrees and being extended to another predetermined

Art Unit: 2821

length along the direction parallel to the radiator and bent to approximately 90 degrees and then being extended to a corresponding position on another end of the printed wire to define another radiator. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Wong et al. (U.S. Patent No. 6,747,600) teaches the dual-band monopole antenna comprising: a microwave substrate with a first surface and a second surface. The first surface has a feeding metallic element, which is a microstrip line for signal transmission. A first horizontal radiating metallic line is printed on the first surface. A second horizontal radiating metallic line is printed on the first surface and below the first horizontal radiating metallic line. A vertical radiating metallic line is printed on the first surface and is in perpendicular to the first horizontal radiating metallic line and the second horizontal radiating metallic line. A feeding point is disposed on the vertical radiating metallic line for connecting the feeding metallic element to the vertical radiating metallic line so as to transmit signals. And a ground plane is printed on the second surface. However, Wong et al. does not disclose or suggest two radiators, of which one being extended from one end of the printed wire at a position other than the corresponding metal grounding surface, and being bent into approximately 90 degrees after being extended to a predetermined length in the direction away from the metal grounding surface to form a radiator of the predetermined length, and then extended along the direction parallel to the radiator and bent into approximately 90 degrees and being extended to another predetermined length along the direction parallel to the

Art Unit: 2821

radiator and bent to approximately 90 degrees and then being extended to a corresponding position on another end of the printed wire to define another radiator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (571) 272-1819. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*shih-chao chen*

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Application/Control Number: 10/644,825  
Art Unit: 2821

Page 5

Primary Examiner  
Art Unit 2821

SXC  
October 21, 2004